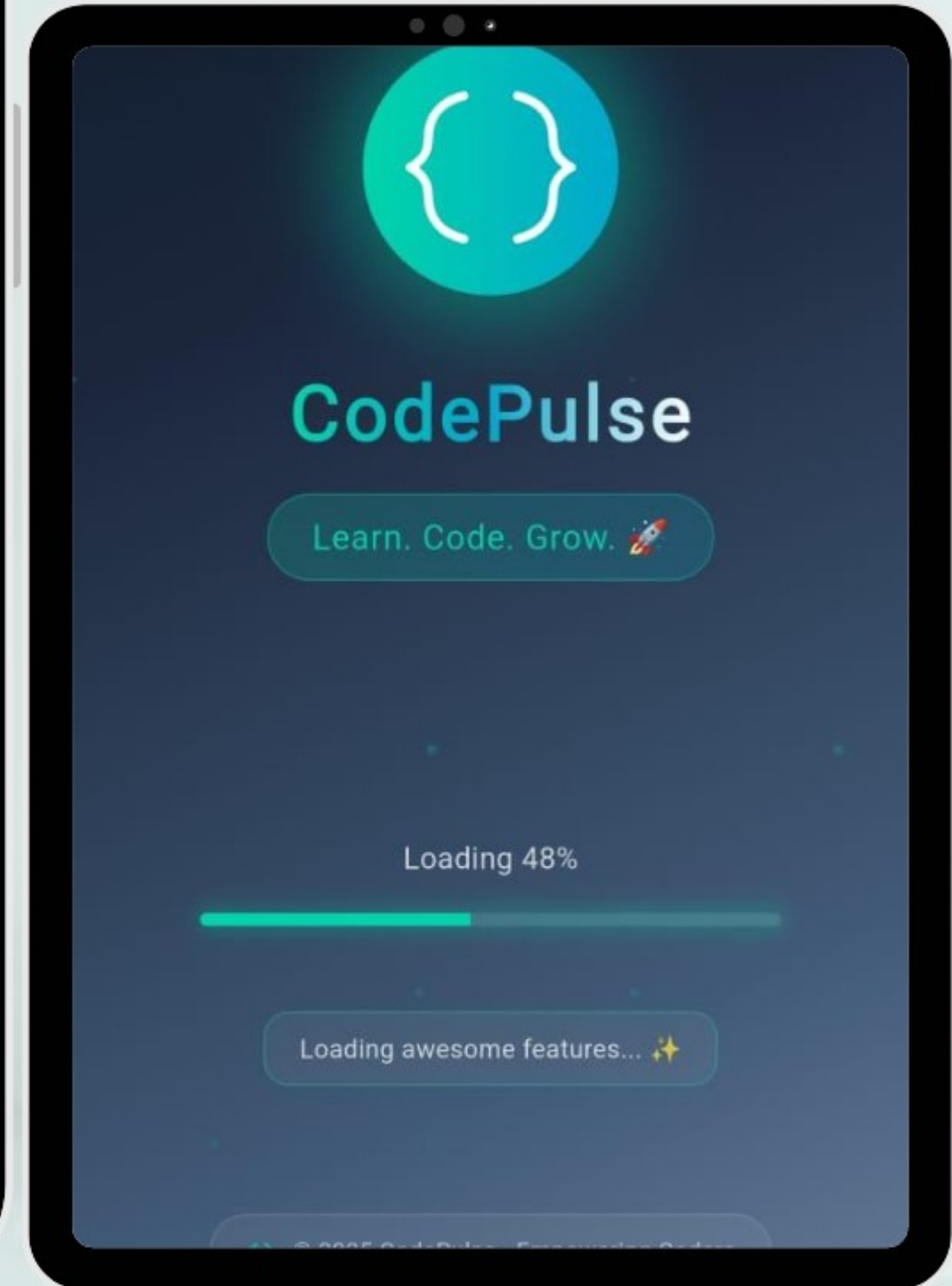
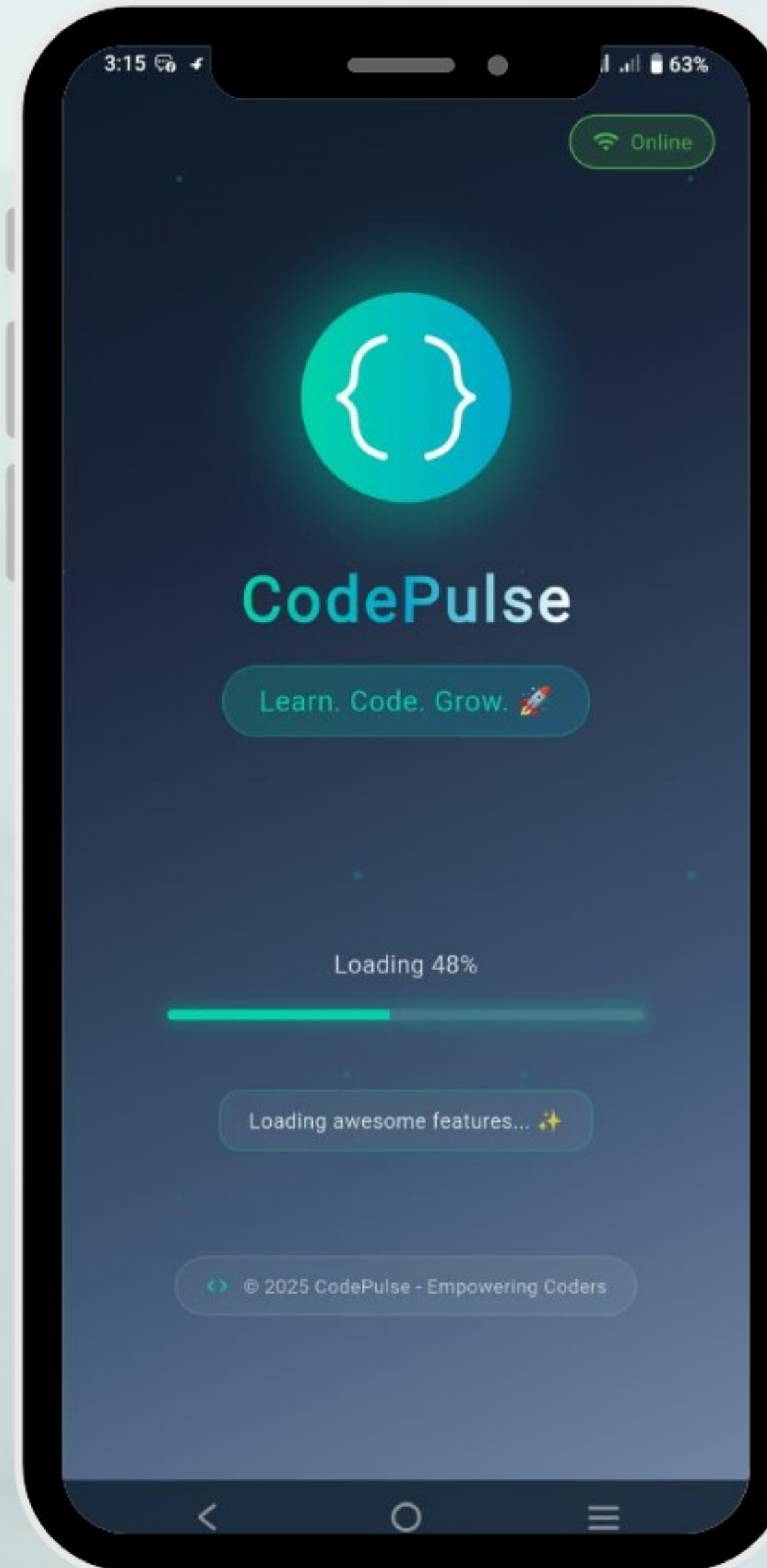


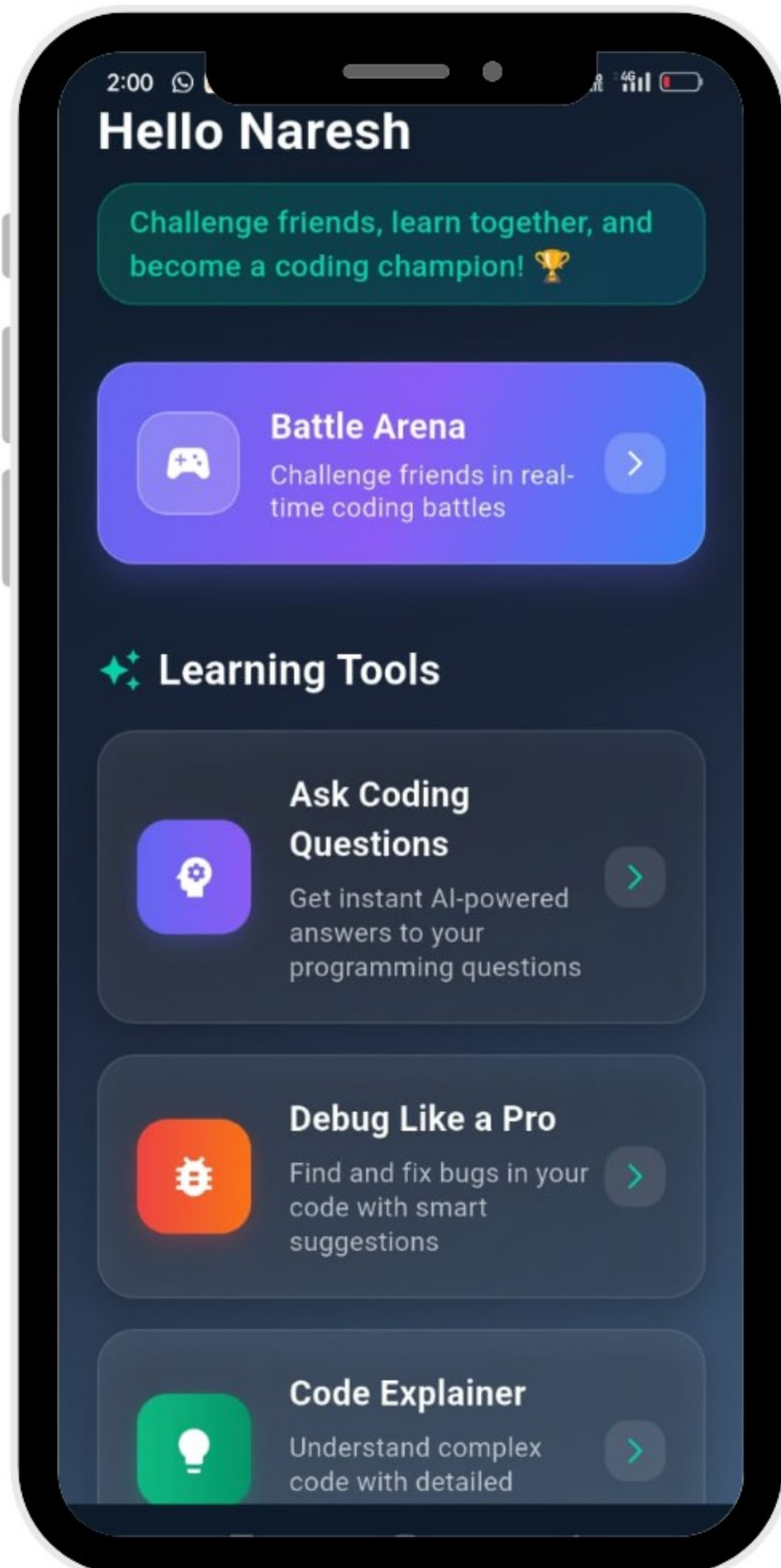
CODEPULSE

AI-POWERED CODING ASSISTANT
FOR SMARTER LEARNING

Built with Flutter | Powered by Gemini API | Backend: Firebase

Presented: J Sai Vaishnavi





Project Overview

About CodePulse

- A mobile app built with Flutter, powered by Gemini API and Firebase
- Designed to help learners solve coding problems, debug code, and improve skills

Core Purpose

- Provide instant coding help: debugging, optimization, and explanations
- Offer quizzes, videos, and PPT reading support for interactive learning
- Support multiple programming languages (C++, Java, Python, etc.)

Vision

To make coding education smarter, engaging, and AI-driven

Key Features & Challenges

Key Features

- AI Coding Help: Real-time debugging and code optimization with Gemini API
- Learning Hub: Quizzes, videos, and PPT Reader for study support
- Profile Section: Personalized user accounts with progress tracking
- Multi-Language Coding: Supports C++, Java, Python, and more

Challenges & Solutions

- User Authentication: Solved with Firebase Authentication for secure login
- Content Integration: Added a PPT Reader and structured video modules
- UI/UX Design: Improved user flow and page layout for better experience



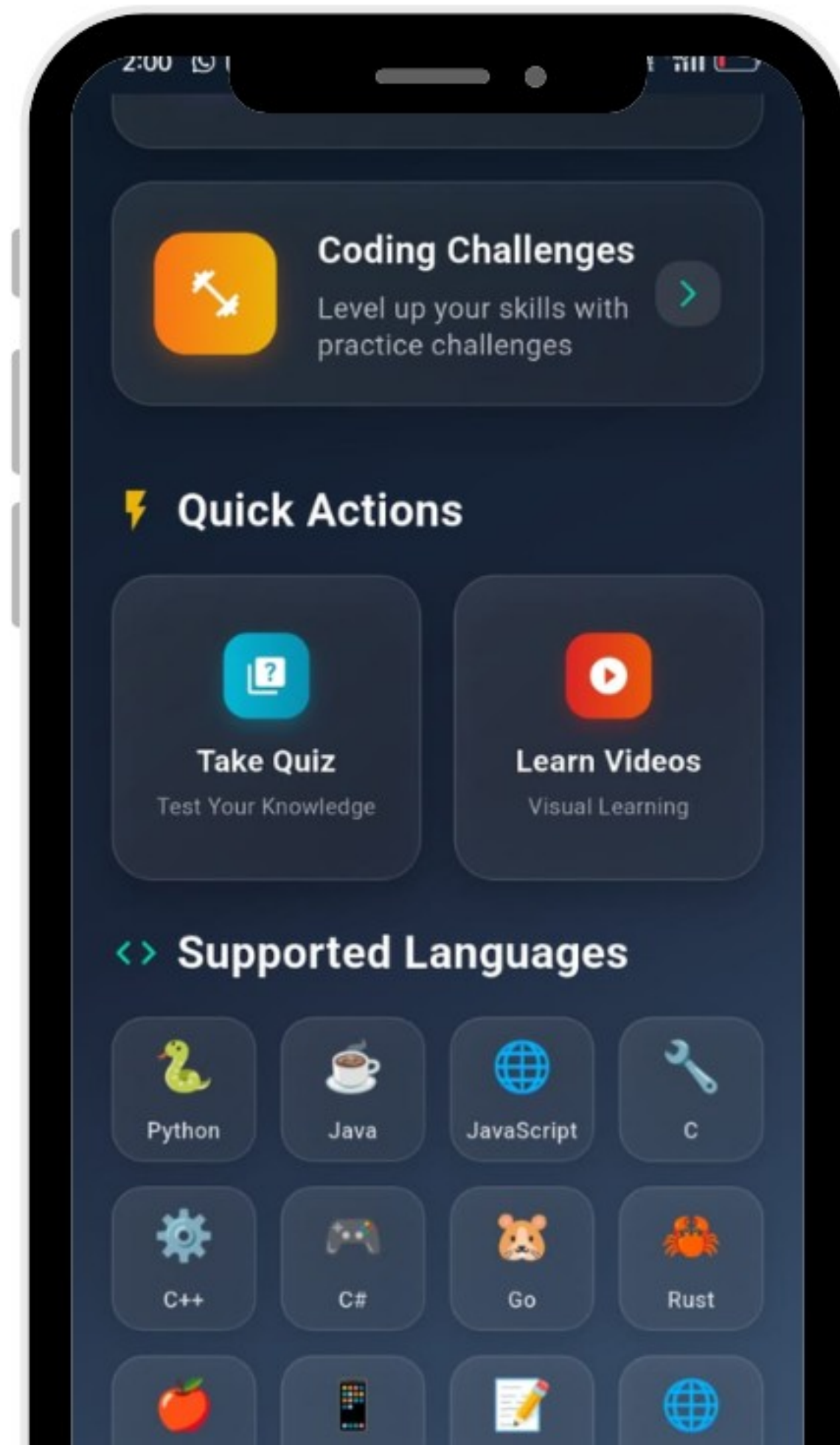
Technology Stack

Frontend

Flutter → Cross-platform app

AI Integration

- Gemini API → Real-time coding help & debugging



Backend

- Firebase → Authentication & Firestore Database
- REST APIs for communication

Deployment

- APK version live with 50+ testers
- Preparing for Google Play Store release

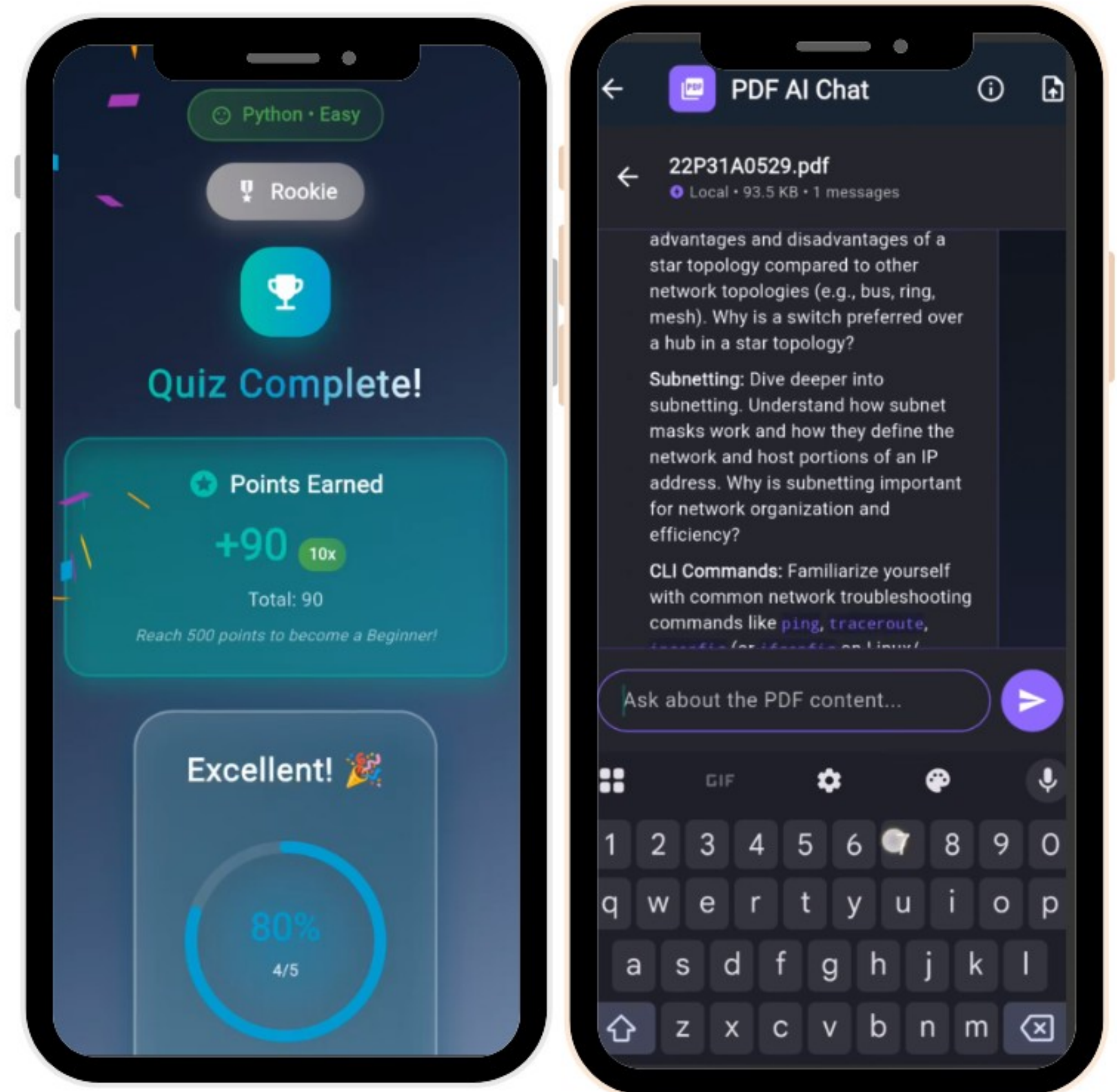
Roles & Responsibilities

My Role

- Built Profile Section for personalized user data
- Developed a PPT Reader to support study materials
- Set up Firebase Authentication for secure login
- Worked on UI/UX design and created key app pages
- Assisted in Gemini API integration for coding support

Team Collaboration

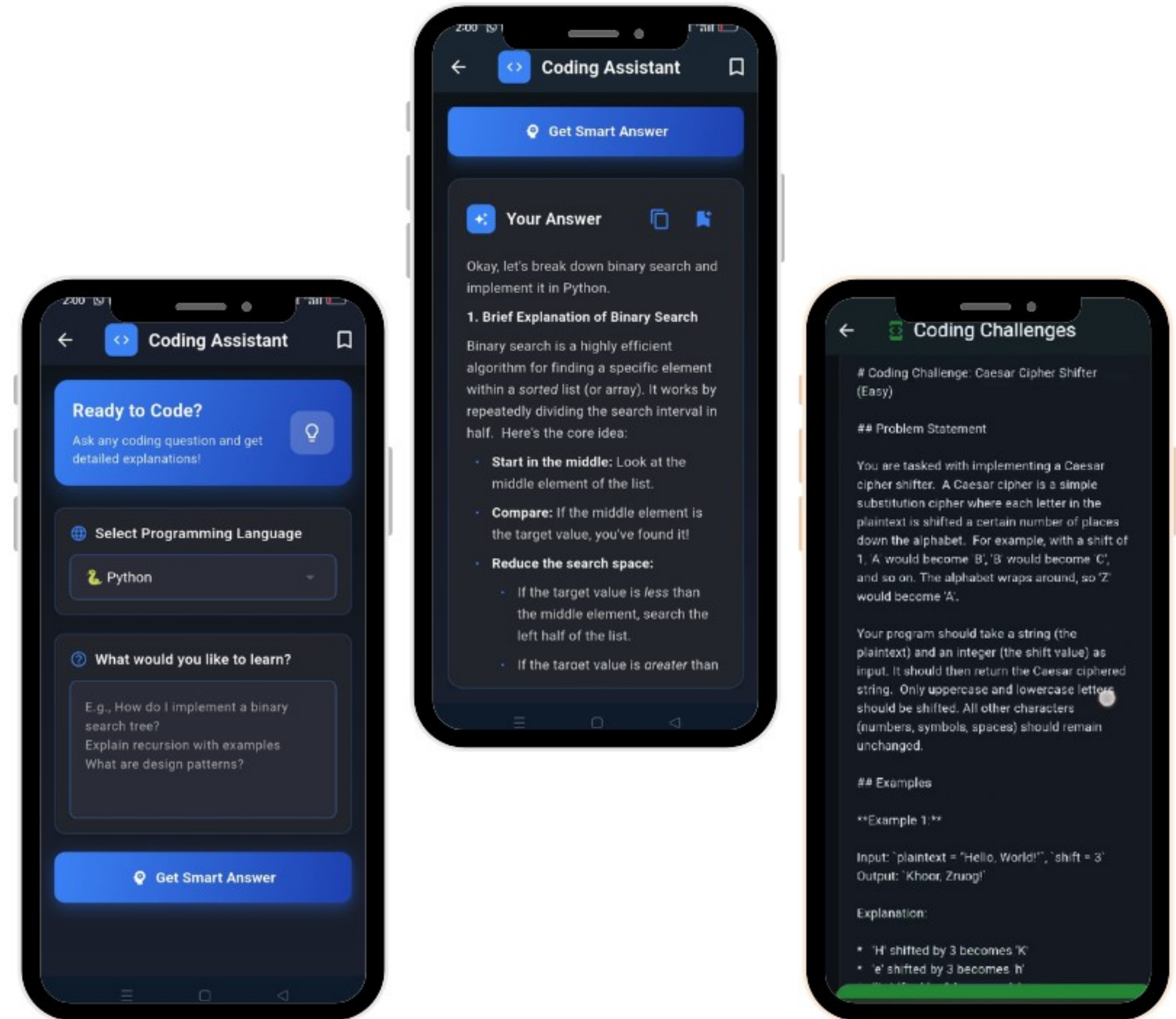
- Coordinated with teammates on quizzes, battles, and data storage
- Helped in testing and debugging to ensure smooth workflows



Conclusion

CodePulse is an AI-powered coding assistant developed in 3 months by a dedicated team of 4.

- Tested by 50+ users through APK release
- Preparing for launch on the Google Play Store
- Provides AI coding help, quizzes, videos, PPT reading, and coding battles
- Supports multiple coding languages (C++, Java, Python, etc.)
- Built to promote smarter and more engaging learning through AI



With teamwork and innovation, we aim to support Digital Transformation (DX) in education.

**Thank you
very much!**